UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/265,073	03/09/1999	DAVID K. OVARD	M140-179	4081

21567 7590 12/30/2005

WELLS ST. JOHN P.S.
601 W. FIRST AVENUE, SUITE 1300
SPOKANE, WA 99201

EXAMINER	
SHIMIZU, MATSUICHIRO	
ART UNIT	**PAPER NUMBER**
2635	

DATE MAILED: 12/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/265,073
Filing Date: March 09, 1999
Appellant(s): OVARD ET AL.

James D. Shaurette
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed on 10/3/05 appealing from the Office action mailed February 9, 2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,842,118	Wood	11-1998
5,649,296	MacLellan et al.	07-1997
3,733,602	Cuckler et al.	6-1973

6,084,530	Pidwerbetsky et al.	7-2000
6,353,729	Bassirat	3-2002
5,799,010	Lomp et al.	8-1998

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-3, 6-8, 11-13, 16-22, 24-25, 27-29, 33-37, 41-42, 51-53, 55-57 and 64-65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood, Jr. (5,842,118) in view of MacLellan et al. (5,649,296) and Cuckler et al. (3,733,602).

Regarding claim 1, Wood discloses an interrogator of a wireless communication system (col. 3, lines 53-60, wireless communication system) comprising: an

interrogator (col. 5, lines 25-27, the host computer acting as a master or interrogator) including: a housing (col. 5, lines 34-38, common housing) including circuitry configured to generate a forward link communication signal (col. 5, lines 30-33 and lines 45-47, forward link command (or function) generated at the host computer acting as master or interrogator); communication circuitry configured to communicate the forward link communication signal (Fig. 5, col. 12, lines 28-44, RF circuitry) and to radiate a forward link wireless signal corresponding to the forward link communication signal (Fig. 5, col. 12, lines 28-44, antennas - X1 and X2); and a remote communication device (col. 3, lines 53 to col. 4, line 16, device or transponder (16)); and wherein the circuitry of the housing comprises a transmitter configured to generate the forward link communication signal (Fig. 5, digitally transmitted data signal via host computer). But Wood does not disclose a communication station remotely located with respect to the housing, and generating the forward link communication signal comprising a modulated signal.

However, MacLellan discloses, in the art of tag identification system, a communication station remotely located with respect to the housing (Fig. 1, interrogator (103) remotely connected via LAN (102)) to extend the range of communication with the tag or transponder. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include a communication station remotely located with respect to the housing in the device of Wood as evidenced by MacLellan because Wood suggests power adjustment to communicate the remote device (col. 6, lines 30-42, power adjustable) and MacLellan teaches a communication station to communicate the remote device to extend the range of communication.

Likewise, Cuckler, teaches, in the art of remote communication system, base or repeater station generating the forward link communication signal comprising a modulated signal (Figs. 1, 3, col. 6, lines 41-52, modulated pulse signal forwarded via antenna 12 to antenna 13) for the purpose of extending the range of communication. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include base or repeater station generating the forward link communication signal comprising a modulated signal in the device of Wood as evidenced by Cuckler because Wood suggests a transmitter configured to generate the forward link communication signal and Cuckler teaches base or repeater station generating the forward link communication signal comprising a modulated signal for the purpose of extending the range of communication.

Regarding claim 2, Wood continues, as disclosed in claim 1, to disclose a driver amplifier to increase the power of the forward link communication signal (Fig. 7, preamplifier (79); col. 6, lines 30-42, power adjustable).

Regarding claim 3, MacLelland, as disclosed in claim 1, to disclose the communication station including the adjustment of an electrical characteristic of the forward link communication signal (Fig. 8, col. 7, lines 26-47, power adjustment (col. 7, lines 43-45, the downlink carrier is always fully or partially present) associated with downlink transmission or interrogation transmission-100% AM or 50% AM or 100% power level and 50% power level).

All subject matters except a power amplifier in claim 6 are disclosed in claims 1 and 3. However, Wood discloses a power amplifier (Wood-Fig. 7, preamplifier (79)), and therefore, rejections of all subject matters expressed in claim 6 are met by

references and associated arguments applied to rejections of claims 1 and 3, and the above disclosure of Wood.

Regarding claim 7, Wood continues, as claimed in claim 6, to disclose communication station is including an antenna to receive and radiate (Fig. 1, col. 5, lines 53-61, the device 12 as a cellular telephone associated base stations or communication stations or interrogators).

Regarding claim 8, Wood continues, as disclosed in claim 1, to disclose a radio frequency identification device (col. 4, lines 19-26, RF identification badge).

Regarding claim 64, Wood teaches the wireless communication system according to claim 1 wherein the forward link communication signal generated by the circuitry of the housing comprises data including command (col. 5, lines 34-52, common housing of host computer 48 and interrogator 26; interrogation signal or command).

All subject matters in claims 11-13 and 16-20 are disclosed in claims 1-3 and 6-10 and therefore, rejections of all subject matters expressed in claims 11-13 and 16-20 are met by references and associated arguments applied to rejections of claims 1-3 and 6-10.

Regarding claim 21, Wood discloses an interrogator of a wireless communication system (col. 3, lines 53-60, wireless communication system) comprising: a housing (col. 5, lines 34-38, common housing) including circuitry configured to generate a forward link communication signal (col. 5, lines 30-33 and lines 45-47, forward link command (or function) generated at the host computer acting as master or interrogator); and wherein the circuitry of the housing comprises a transmitter configured to generate the forward link communication signal comprising a modulated signal (Fig. 5, digital transmit data or modulated signal via host computer,

that is; signal transmitted by the host computer is digital signal modulating the continuous frequency generated by the frequency oscillator in the computer). But Wood does not disclose a plurality of forward link communication signals and a plurality of communication stations remotely located with respect to the housing; and station generating the forward link communication signal comprising a modulated signal.

However, MacLellan discloses, in the art of tag identification system, a plurality of forward link communication signals and a plurality of communication stations remotely located with respect to the housing (Fig. 1, interrogators (103) (or remote stations); multiple signals on interrogators) remotely connected via LAN (102)) to extend the range of communication with the tags or transponders. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include a plurality of forward link communication signals and a plurality of communication stations remotely located with respect to the housing in the device of Wood as evidenced by MacLellan because Wood suggests power adjustment to communicate the remote device (col. 6, lines 30-42, power adjustable) and MacLellan teaches a plurality of forward link communication signals and a plurality of communication stations remotely located with respect to the housing to extend the range of communication with the tags or transponders.

Likewise, Cuckler teaches, in the art of remote communication system, base or repeater station generating the forward link communication signal comprising a modulated signal (Figs. 1, 3, col. 6, lines 41-52, modulated pulse signal forwarded via antenna 12 to antenna 13) for the purpose of extending the range of communication. Therefore, it would have been obvious to a person skilled in the art at the time the

invention was made to include base or repeater station generating the forward link communication signal comprising a modulated signal in the device of Wood as evidenced by Cuckler because Wood suggests a transmitter configured to generate the forward link communication signal and Cuckler teaches base or repeater station generating the forward link communication signal comprising a modulated signal for the purpose of extending the range of communication.

All subject matters in claim 22 is disclosed in claim 7 and therefore, rejections of all subject matters expressed in claim 22 is met by references and associated arguments applied to rejections of claim 7.

Regarding claim 24, Wood discloses an interrogator of a wireless communication system (col. 3, lines 53-60, wireless communication system). But Wood is silent on communication circuit configured to communicate one forward link communication signal intermediate the housing and communication station.

However, MacLellan discloses, in the art of tag identification system, communication circuit configured to communicate one forward link communication signal intermediate the housing and communication station (Fig. 1, LAN (102) circuit is analogous to intermediate communication circuit) to extend the range of communication with the tags or transponders. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include communication circuit configured to communicate one forward link communication signal intermediate the housing and communication station in the device of Wood as evidenced by MacLellan because Wood suggests power adjustment to communicate the remote device (col. 6, lines 30-42, power adjustable) and MacLellan teaches communication circuit configured to communicate one forward link communication

signal intermediate the housing and communication station to extend the range of communication with the tags or transponders.

Regarding claim 25, Wood In view of MacLellan discloses an interrogator according to claim 21 is a wireless communication system (Wood-col. 3, lines 53-60, wireless communication system); and the interrogator wherein the communication stations (MacLellan-Fig. 2, power associated with radio signal sources for plural interrogator stations 103...103 + N) are individually positioned to radiate the forward link wireless signal within one of a plurality of communication ranges (Wood-col. 6, lines 30-42, power adjustable device provide different ranges according to sensitivity of tag location).

Claims 27-29 and 33-34 recite a method of operation corresponding to wireless communication systems, interrogators and methods of communicating within a wireless communication system of claims 1-3, 6 and 8. The method claimed is obvious in that it parallels the implementation of wireless communication systems, interrogators and methods of communicating within a wireless communication system indicated in claims 1-3, 6 and 8 in performing each of the functional operations of wireless communication systems, interrogators and methods of communicating within a wireless communication system. Accordingly, the inventive embodiments set forth in Claims 27-29 and 33-34 are met by the references and associated arguments as set forth above and incorporated herein. Therefore, it is considered that rejection of the limitations expressed in claims 27-29 and 33-34 would have been obvious to the artisan of ordinary skill at the time of the invention for the reasons given in the rejection of claims 1-3, 6 and 8.

Regarding claim 65, Wood teaches the method according to claim 27 wherein the generating the forward link communication signal comprising data including command (col. 5, lines 34-52, common housing of host computer 48 and interrogator 26; interrogation signal or command).

Claims 35-37 and 41 recite a method of operation corresponding to wireless communication systems, interrogators and methods of communicating within a wireless communication system of claims 11-13 and 16. The method claimed is obvious in that it parallels the implementation of wireless communication systems, interrogators and methods of communicating within a wireless communication system indicated in claims 11-13 and 16 in performing each of the functional operations of wireless communication systems, interrogators and methods of communicating within a wireless communication system. Accordingly, the inventive embodiments set forth in Claims 35-37 and 41 are met by the references and associated arguments as set forth above and incorporated herein. Therefore, it is considered that rejection of the limitations expressed in Claims 35-37 and 41 would have been obvious to the artisan of ordinary skill at the time of the invention for the reasons given in the rejection of claims 11-13 and 16.

Claim 42 recites a method of operation corresponding to wireless communication systems, interrogators and methods of communicating within a wireless communication system of claims 11, 21 and 25. The method claimed is obvious in that it parallels the implementation of wireless communication systems, interrogators and methods of communicating within a wireless communication system indicated in claims 11, 21 and 25 in performing each of the functional operations of wireless communication systems, interrogators and methods of communicating within

a wireless communication system. Accordingly, the inventive embodiments set forth in claim 42 are met by the references and associated arguments as set forth above and incorporated herein. Therefore, it is considered that rejection of the limitations expressed in claim 42 would have been obvious to the artisan of ordinary skill at the time of the invention for the reasons given in the rejection of claims 11, 21 and 25.

Regarding claim 51, MacLellan teaches the wireless communication system according to claim 1 wherein the communication station is configured to convert the forward link communication signal comprising the modulated signal from a first communication medium type (Figs. 1-3, first modulated signal within 101-103 circuits (wired circuits); modulated digital signal out of computer 101 associated with application processor) to a second communication medium type (Figs. 1-3, second modulated signal out of 204) comprising a wireless medium and different than the first communication medium type.

Regarding claim 52, MacLellan teaches the wireless communication system according to claim 51 wherein the first communication medium type comprises a wired medium (Figs. 1-3, first modulated signal within 101-103 circuits (wired circuits)).

Regarding claim 53, MacLellan teaches the wireless communication system according to claim 1 wherein the communication circuitry comprises a wired medium configured to communicate the forward link wireless signal comprising the modulated signal intermediate the housing and the communication station (Figs. 1-3, first modulated signal within 101-102 and communication stations 103 (wired LAN circuits); digital signal out of computer).

Regarding claim 55, MacLellan teaches the method according to claim 35 wherein the radiating comprises converting the forward link communication signal comprising

the modulated signal from a first communication medium type (Figs. 1-3, first modulated signal within 101-103 circuits (wired circuits)) to a second communication medium type (Figs. 1-3, second modulated signal out of 204) comprising a wireless medium and different than the first communication medium type.

Regarding claim 56, MacLellan teaches the method according to claim 55 wherein the first communication 'Medium type comprises a wired medium (Figs. 1-3, first modulated signal within 101-103 circuits (wired circuits)).

Regarding claim 57, MacLellan teaches the method according to claim 35 wherein the communicating comprises communicating the forward link wireless signal comprising the modulated signal from the housing using a wired medium (Figs. 1-3, first modulated signal within 101-102 and communication stations 103 (wired LAN circuits); digital signal out of computer).

Claims 58-63 and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood, Jr. (5,842,118) in view of MacLellan et al. (5,649,296), Cuckler et al. (3,733,602) and Pidwerbetsky et al. (6,084,530).

All subject matters except generating a polling signal using circuitry of a source in claims 58 are disclosed in claims 1 and 51. However, Pidwerbetsky teaches, in the art of tag identification system, generating a polling signal using circuitry of an interrogator (col. 12, lines 12-18, polls by interrogators 103) and interrogator receiving information from application processor (col. 3, lines 32-55, source associated with application processor or pc 101) for the purpose of reducing collision of responding communications. Furthermore, one skilled in the art recognizes using circuitry of source associated with housing or pc and using circuitry of interrogator provide same interrogation process. Therefore, it would have been obvious to a

person skilled in the art at the time the invention was made to include generating a polling signal using circuitry of a source in the device of Wood because Wood suggests generating a forward link communication signal and Pidwerbetsky teaches generating a polling signal using circuitry of a source for the purpose of reducing collision of responding communications. Therefore rejection of the subject matters expressed in claims 58 are met by references and associated arguments applied to rejection of claims 1 and 51 and to rejection provided in the previous paragraph.

All subject matters in claim 59 are disclosed in claim 51, and therefore rejection of the subject matters expressed in claim 59 are met by references and associated arguments applied to rejection of claim 51.

All subject matters in claim 60 are disclosed in claim 8, and therefore rejection of the subject matters expressed in claim 60 are met by references and associated arguments applied to rejection of claim 8.

Regarding claim 61, MacLellan teaches the source comprises a housing and the first communicating comprises communicating externally of the housing (Fig. 1, first communicating is between housing 101 and interrogator or base station 103).

Regarding claim 62, MacLellan teaches the method of claim 58 wherein the modulating comprises RF modulating (Fig. 1, modulated rf signal to tag 105).

Regarding claim 63, Pidwerbetsky teaches the method of claim 62 wherein the modulating comprises RF modulating (Fig. 2, modulator 202 to generate modulated rf signal to specific tag 105 via antenna 204) a carrier signal (Fig. 2, carrier signal from radio signal source 201) using a data signal (Fig. 2, information signal 200a) configured to implement polling of the transponder (col. 12, lines 12-18, polling tags 105).

Regarding claim 66, MacLellan teaches the method of claim 58 wherein the second communicating comprises communicating using the communications station (Figs. 1-3, second modulated signal out of antenna 204 or 304).

Claims 9-10 and 49-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood in view of MacLellan and Cuckler as applied to claim 1 above, and further in view of Bassirat (6,353,729).

Regarding claim 9, Wood in view of MacLellan and Cuckler teaches wired LAN system to interrogators (MacLellan-Fig. 1, interrogator as communication station 103). But Wood in view of MacLellan and Cuckler is silent on a coaxial RF cable associated with communication station

However, Bassirat teaches, in the art of network communication system, a coaxial RF cable associated with repeater station (col. 9, lines 11-18, coaxial cable associated with RF wherein the cable is used to extend the computer network via the repeater, and LAN is one of computer network architecture) for the purpose of extending the communication range. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include a coaxial RF cable in the device of Wood in view of MacLellan and Cuckler as evidenced by Bassirat because Wood in view of MacLellan and Cuckler suggests wired communication system associated with LAN system and Bassirat teaches a coaxial RF cable associated with communication station for the purpose of extending the communication range.

Regarding claim 10, Wood in view of MacLellan and Cuckler discloses wireless LAN system to interrogators (MacLellan-Fig. 1, interrogator as communication station 103: Cuckler-Figs. 1 and 3, interrogator) as well as plural transceivers (Wood-col. 13,

lines 44-50, plural wireless receiver and transmitter or transceivers via common antennas; Cuckler - Fig. 3, wireless interrogator).

Furthermore, Bassirat teaches, in the art of network communication system, a plurality of transceivers associated with repeater station (Fig. 5, plural transceivers associated with antennas having Gar and Gaff) for the purpose of extending the communication range. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include a plurality of transceivers in the device of Wood in view of MacLellan and Cuckler as evidenced by Bassirat because Wood in view of MacLellan and Cuckler suggests wired communication system associated with LAN system and Bassirat teaches a plurality of transceivers associated with communication station for the purpose of extending the communication range.

All subject matters in claim 49 are disclosed in claims 1 and 9, and therefore rejection of the subject matters expressed in claim 49 are met by references and associated arguments applied to rejection of claims 1 and 9.

All subject matters in claim 50 are disclosed in claims 1 and 10, and therefore rejection of the subject matters expressed in claim 50 are met by references and associated arguments applied to rejection of claims 1 and 10.

Claims 4-5, 14-15, 23, 26, 30-32, 38-40, 46 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood in view of MacLellan and Cuckler as applied to claims 1 and 3 above, and further in view of Lomp et al. (5,799,010).

Regarding claim 4, Wood in view of MacLellan and Cuckler continues, as disclosed in claim 3, to disclose the adjustment of electrical characteristics (MacLellan -Fig. 8, col. 7, lines 26-47, power adjustment associated with down link transmission-

100% AM or 50% AM). But Wood in view of MacLellan and Cuckler does not disclose the adjustment circuitry comprises automatic gain control circuitry.

However, Lomp discloses, in the art of communication power control system, the adjustment circuitry comprises automatic gain control circuitry (Figs. 29-30, col. 66, lines 44-65, AGC) for the purpose of power control of subscriber unit and base stations within communication system. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include the adjustment circuitry comprises automatic gain control circuitry in the device of Wood in view of MacLellan and Cuckler as evidenced by Lomp because Wood in view of MacLellan and Cuckler suggests the adjustment of electrical characteristics and Lomp teaches the adjustment circuitry comprises automatic gain control circuitry for the purpose of power control of subscriber unit and base stations within communication system.

Regarding claim 5, Lomp continues, as disclosed in claim 4, to disclose the automatic gain control circuitry is configured to monitor the power and adjust the power (Figs. 29-30, power control system or monitoring system, col. 66, lines 44-65, AGC).

All subject matters in claims 14 are disclosed in claims 1 and 4 and therefore, rejections of all subject matters expressed in claims 14 are met by references and associated arguments applied to rejections of claims 1 and 4.

All subject matters in claims 15 are disclosed in claims 1 and 4-5 and therefore, rejections of all subject matters expressed in claims 15 are met by references and associated arguments applied to rejections of claims 1 and 4-5.

All subject matters in claim 23 are disclosed in claims 4 and 22 and therefore, rejections of all subject matters expressed in claim 23 are met by references and associated arguments applied to rejections of claims 4 and 22.

All subject matters in claims 26 are disclosed in claims 1-2 and 4-8 and therefore, rejections of all subject matters expressed in claims 26 are met by references and associated arguments applied to rejections of claims 1-2 and 4-8.

Claims 30-32 recite a method of operation corresponding to wireless communication systems, interrogators and methods of communicating within a wireless communication system of claims 1 and 4-5. The method claimed is obvious in that it parallels the implementation of wireless communication systems, interrogators and methods of communicating within a wireless communication system indicated in claims 1 and 4-5 in performing each of the functional operations of wireless communication systems, interrogators and methods of communicating within a wireless communication system. Accordingly, the inventive embodiments set forth in Claims 30-32 are met by the references and associated arguments as set forth above and incorporated herein. Therefore, it is considered that rejection of the limitations expressed in Claims 30-32 would have been obvious to the artisan of ordinary skill at the time of the invention for the reasons given in the rejection of claims 1 and 4-5.

Claims 38-40 recite a method of operation corresponding to wireless communication systems, interrogators and methods of communicating within a wireless communication system of claims 14-15. The method claimed is obvious in that it parallels the implementation of wireless communication systems, interrogators and methods of communicating within a wireless communication system indicated in claims 14-15 in performing each of the functional operations of wireless

communication systems, interrogators and methods of communicating within a wireless communication system. Accordingly, the inventive embodiments set forth in Claims 38-40 are met by the references and associated arguments as set forth above and incorporated herein. Therefore, it is considered that rejection of the limitations expressed in Claims 38-40 would have been obvious to the artisan of ordinary skill at the time of the invention for the reasons given in the rejection of claims 14-15.

All subject matters in claim 46 are disclosed in claim 26 and therefore, rejections of all subject matters expressed in claim 46 are met by references and associated arguments applied to rejections of claim 26.

Regarding claim 54, Lomp teaches the wireless communication system according to claim 4 wherein the automatic gain control circuitry is configured to adjust the electrical characteristic of the forward link communication signal comprising the modulated signal which comprises a wired signal (Figs. 29-30, power control system or monitoring system of wired signal, col. 66, lines 44-65, AGC).

(10) Response to Argument

Regarding appellant's argument (section A, page s 6-11), it is examiner's position that such arguments are not persuasive. That is, Wood teaches the circuitry of the housing comprises a transmitter configured to generate the forward link communication signal (Fig. 5, digitally transmitted data signal via host computer 48 or housing to interrogator unit 26), MacLellan teaches, in the art of tag identification system, a communication station *remotely* located with respect to the housing (Fig. 1, interrogator (103) remotely connected via LAN (102)) to extend the range of communication with the tag or transponder to extend the range of communication (or

remote communication). Since prior arts of Wood and MacLellan are common in the art of tag identification system, and prior arts of Wood and Cuckler are common in the art of remote or wireless communication, they are combinable to teach a communication station remotely located with respect to the housing, and generating the forward link communication signal comprising a modulated signal.

Regarding appellant's argument (section B, pages 11-14), the appellant argues that Cuckler generates a signal for intrusion detection and not for extending range of communications. Therefore, rejection of claims 1-42 , 46 and 49-66 is improper. However, prior arts of Wood, MacLellan and Cuckler are common in the art of remote or wireless communication, and are combinable to teach extended range of data transmission, and therefore, Cuckler teaches modulator 46, pulse generator 41 and RF diode oscillator 47 (Fig. 3) or repeater for the purpose of extending data transfer range.

Regarding appellant's argument (section C, pages 14-16), the appellant argues that there is no motivation to combine the teachings of Cuckler with the teachings of Wood and MacLellan and the 103 rejection of claims 1-25,27-42, 51-66 is improper. However, prior arts of Wood, MacLellan and Cuckler are common in the art of remote or wireless communication, and are combinable to teach modulated signal. Furthermore, One skilled in the art recognizes that data signal or communication signal is ***always modulated*** along its path within the circuit and medium to be transmitted to the destination. How-else electronic data can be transmitted?

Regarding appellant's argument (section D, pages 16-17), the appellant argues that Cuckler is non-analogous prior art and the 103 rejection of claims 1-42, 46 and 49-66 is improper. However, prior arts of Wood, MacLellan and Cuckler are common

in the art of remote or wireless communication, and therefore, they are analogous and are combinable to teach to teach extended range of data transmission.

Regarding appellant's argument (section E, pages 17-18), the appellant argues that there is no motivation to combine the teachings of Pidwerbetsky with the teachings of Wood, MacLellan and Cuckler and the 103 rejection of claims 58-63 and 66 is improper. However, prior arts of Wood, MacLellan, Cuckler and Pidwerbetsky are common in the art of remote or wireless communication, and therefore, they are analogous and are combinable to teach to teach wherein Pidwerbetsky teaches generating a polling signal using circuitry of an interrogator (col. 12, lines 12-18, polls by interrogators 103) and interrogator receiving information from application processor (col. 3, lines 32-55, source associated with application processor or pc 101) wherein polling process instead of broadcast process is to avoid interference (or collision) of response signals among polled transponders.

Regarding appellant's argument (section F., pages 19-20), the appellant argues that positively-recited limitations of claims 3,4,13,14,22 and 23 are not disclosed nor suggested by the prior art even if the references are combined. However, MacLelland teaches the communication station including the adjustment of an electrical characteristic of the forward link communication signal (Fig. 8, col. 7, lines 26-47, power adjustment (col. 7, lines 43-45, the downlink carrier is always fully or partially present) associated with downlink transmission or interrogation transmission-100% AM or 50% AM or 100% power level and 50% power level).

Regarding appellant's argument (section G, page 21), the appellant argues that there is no motivation to combine the teachings of Lomp with the teachings of Wood, MacLellan and Cuckler and the 103 rejection of claims 4,5,14,15,23,26,30,38,46 and 54 is improper. However, prior arts of Wood, MacLellan, Cuckler and Lomp are common in the art of remote or wireless communication, and therefore, they are analogous and

are combinable to teach to teach wherein Lomp teaches , in the art of communication power control system, the adjustment circuitry comprises automatic gain control circuitry (Figs. 29-30, col. 66, lines 44-65, AGC is a power control associated with feedback control for forward communication) for the purpose of power control of subscriber unit and base stations within communication system.

Regarding appellant's argument (section H., pages 22-24), the appellant argues that positively-cited limitations of claims 51,55 and 58 are not disclosed nor suggested by the prior art even if the references are combined. However, MacLellan teaches modulated signal intermediate circuitry of a housing (Fig. 1, application processor 101) and a communication station(Figs. 1-3, communication stations 103 (connected to wired LAN circuits)) remotely located with respect to the housing and the circuitry. via modulator 202 in interrogator 103.

Regarding appellant's argument (section I., page 24), the appellant argues that positively-cited limitations of claims 53 and 57 are not disclosed nor suggested by the prior art even if the references are combined. However, MacLellan teaches the communication circuitry (Figs. 1-3, LAN circuitry 102) comprises a wired medium configured to communicate the forward link wireless signal (Fig. 1, wireless signal between communication station 103 and tag 105) comprising the modulated signal intermediate the housing (Fig. 1, application processor 101) and communication stations 103 (wired LAN circuits) and the communication station (Figs. 1-3, communication stations 103 (connected to wired LAN circuits)). One skilled in the art recognizes that data signal or communication signal is ***always modulated*** along communication path with optimum modulation scheme within the circuit modules and

medium to be transmitted to the destination. How-else electronic data can be transmitted?

Regarding applicant's argument (section J, page 25), the appellant argues that positively-cited limitations of claim 60 are not disclosed nor suggested by the prior art even if the references are combined. However, MacLellan teaches wired medium (wired LAN 102) between application processor 101 and interrogator or communication station 103 and wireless medium (radio signal radiated from antenna 204 is an electromagnetic energy) between interrogator or communication station 103 medium and tag 105 (Fig. 1).

Regarding appellant's argument (section K, pages 26-27), the appellant argues that positively–cited limitations of claim 62 are not disclosed nor suggested by the prior art even if the references are combined. However, MacLellan teaches the modulating comprises RF modulating (Fig. 1, second communication medium associated with modulated rf signal (wireless signal) to tag 105).

Regarding appellant's argument (section L, page 27), the appellant argues that positively–cited limitations of claim 64 and 65 are not disclosed nor suggested by the prior art even if the references are combined. However, Wood teaches the wireless communication system wherein the forward link communication signal generated by the circuitry of the housing comprises data including command (col. 5, lines 34-52, common housing of host computer 48 and interrogator 26; interrogation signal or command).

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

MATSUICHIRO SHIMIZU

Conferees:

DOCKET CLARK

601 W. First Avenue, Suite 1300

Spokane, WA 99201-3817

EDWIN C. HOLLOWAY III
PRIMARY EXAMINER

MICHAEL HORABIK
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

DANIEL WU
SUPERVISORY PATENT EXAMINER